## STM32F107VCT6 ICMP-Verbindung Grundkonfiguration mit CubeMX.

1. MCU wählen

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2. Master Clock Output und High Speed Clock aktivieren

3. Clocks wie im Bild gezeigt konfigurieren



4. ETH aktivieren, PHY – Address -> 0



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5. GPIO -> RCC -> PA8: Maximum output speed auf "High" stellen

6. LWIP (Leighweight IP) aktivieren, ICMP Broadcast und Multicast Ping unter "Key Options" aktivieren

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7. Unter "Project Manager" Toolchain / IDE -> Makefile wählen, und Code generieren

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8. Mainfile anpassen

CubeMX generiert ein Projektverzeichnis, welches nun von der gewünschten IDE (wir verwenden VS Code) genutzt werden kann. Der generierte Code genügt, um einen Link herzustellen (Windows zeigt in den Adapteropionen "undefined Network"). Damit das Board eine IP-Adresse erhält, muss main.c wie folgt angepasst werden:

```
56 /* USER CODE BEGIN 0 */
57 extern struct netif gnetif;
58 /* USER CODE END 0 */
94
        while (1) {
           /* USER CODE END WHILE */
95
96
            ethernetif_input(&gnetif);
97
            sys_check_timeouts();
            /* USER CODE BEGIN 3 */
98
99
        }
        /* USER CODE END 3 */
100
```

Das Board erhält nun eine IP-Adresse vom DHCP-Server. Eine manuelle IP-Konfiguration lässt sich bei CubeMX unter LWIP -> General Settings einstellen. Hierzu muss zuerst DHCP deaktivert werden.

